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JCEP U.S. PTO

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Please type a plus sign (+) inside this box ☒ Approved for use through 10/31/2002. OMB 0651-0032  
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# UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No. 678-726 (P9926)

First Inventor Jae-Seung YOO

Title Antenna Array Apparatus and Beamforming ...

Express Mail Label No. EL 918828596 US

## APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original and a duplicate for fee processing)
2. ☐ Applicant claims small entity status.  
See 37 CFR 1.27.
3. ☒ Specification [Total Pages 35]  
(preferred arrangement set forth below)
  - Descriptive title of the invention
  - Cross Reference to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference to sequence listing, a table, or a computer program listing appendix
  - Background of the Invention
  - Brief Summary of the Invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 10]
5. ☐ Oath or Declaration [Total Pages ]
  - a. ☐ Newly executed (original or copy)
  - b. ☐ Copy from a prior application (37 CFR 1.63 (d))  
(for continuation/divisional with Box 18 completed)
    - i. ☐ **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. ☒ Application Data Sheet. See 37 CFR 1.76

ADDRESS TO: Assistant Commissioner for Patents  
Box Patent Application  
Washington, DC 20231

7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
  - a. ☐ Computer Readable Form (CRF)
  - b. Specification Sequence Listing on:
    - i. ☐ CD-ROM or CD-R (2 copies); or
    - ii. ☐ paper
  - c. ☐ Statements verifying identity of above copies

## ACCOMPANYING APPLICATION PARTS

9. ☐ Assignment Papers (cover sheet & document(s))
10. ☐ 37 CFR 3.73(b) Statement of Power of Attorney (when there is an assignee)
11. ☐ English Translation Document (if applicable)
12. ☐ Information Disclosure Statement (IDS)/PTO-1449 [Copies of IDS Citations]
13. ☐ Preliminary Amendment
14. ☒ Return Receipt Postcard (MPEP 503) (Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed)
16. ☐ Request and Certification under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. ☐ Other: .....

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP)

of prior application No.: \_\_\_\_\_

Prior application information:

Examiner: \_\_\_\_\_

Group Art Unit: \_\_\_\_\_

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

## 19. CORRESPONDENCE ADDRESS

☐ Customer Number or Bar Code Label

(Insert Customer No. or Attach bar code label here)

or ☒ Correspondence address below

Name	Paul J. Farrell, Esq.				
Address	DILWORTH & BARRESE, LLP				
	333 Earle Ovington Blvd.				
City	Uniondale	State	New York	Zip Code	11553
Country	U.S.A	Telephone	(516) 228-8484	Fax	(516) 228-8516

Name (Print/Type)	Paul J. Farrell	Registration No. (Attorney/Agent)	33,494
Signature		Date	August 16, 2001

CERTIFICATION UNDER 37 C.F.R. § 1.10

I hereby certify that this correspondence and the documents referred to as enclosed are being deposited with the United States Postal Service on date below in an envelope as "Express Mail Post Office to Addressee" Mail Label Number EL 918828596 US, addressed to: Assistant Commissioner for Patents, Box Patent Application, Washington, D.C. 20231.

Dated: August 16, 2001

Michael J. Porco

U.S. PTO  
09/931129  
08/16/01

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# FEE TRANSMITTAL for FY 2001

Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT

(\$ 1,110.00

## Complete if Known

Application Number	Not yet assigned
Filing Date	August 16, 2001
First Named Inventor	Jae-Seung YOO
Examiner Name	
Group Art Unit	Not yet assigned
Attorney Docket No.	678-726 (P9926)

## METHOD OF PAYMENT (check one)

1. ☒ The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:

Deposit Account Number: 04-1121  
Deposit Account Name: DILWORTH & BARRESE, LLP

☒ Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17

☐ Applicant claims small entity status. See 37 CFR 1.27

2. ☒ Payment Enclosed:

☒ Check ☐ Credit card ☐ Money Order ☐ Other

## FEE CALCULATION

### 1. BASIC FILING FEE

Large Entity Code (\$)	Small Entity Code (\$)	Fee Description	Fee Paid
101 710	201 355	Utility filing fee	\$710.00
106 320	206 160	Design filing fee	
107 490	207 245	Plant filing fee	
108 710	208 355	Reissue filing fee	
114 150	214 75	Provisional filing fee	

SUBTOTAL (1) (\$ 710.00

### 2. EXTRA CLAIM FEES

Total Claims	Extra Claims	Fee from below	Fee Paid
13	-20** = 0	18	\$0
8	-3** = 5	80	\$400
Multiple Dependent Claims		270	0

\*\*or number previously paid, if greater; For Reissues, see below

Large Entity Code (\$)	Small Entity Code (\$)	Fee Description
103 18	203 9	Claims in excess of 20
102 80	202 40	Independent claims in excess of 3
104 270	204 135	Multiple dependent claim, if not paid
109 80	209 40	** Reissue Independent claims over original patent
110 18	210 9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$ 400.00

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

Large Entity Code (\$)	Small Entity Code (\$)	Fee Description	Fee Paid
105 130	205 65	Surcharge - late filing fee or oath	
127 50	227 25	Surcharge - late provisional filing fee or cover sheet	
139 130	139 130	Non-English specification	
147 2,520	147 2,520	For filing a request for ex parte reexamination	
112 920*	112 920*	Requesting publication of SIR prior to Examiner action	
113 1,840*	113 1,840*	Requesting publication of SIR after Examiner action	
115 110	215 55	Extension for reply within first month	
116 390	216 195	Extension for reply within second month	
117 890	217 445	Extension for reply within third month	
118 1,390	218 695	Extension for reply within fourth month	
128 1,890	228 945	Extension for reply within fifth month	
119 310	219 155	Notice of Appeal	
120 310	220 155	Filing a brief in support of an appeal	
121 270	221 135	Request for oral hearing	
138 1,510	138 1,510	Petition to institute a public use proceeding	
140 110	240 55	Petition to revive - unavoidable	
141 1,240	241 620	Petition to revive - unintentional	
142 1,240	242 620	Utility Issue fee (or reissue)	
143 440	243 220	Design issue fee	
144 600	244 300	Plant issue fee	
122 130	122 130	Petitions to the Commissioner	
123 50	123 50	Processing fee under 37 CFR 1.17(c)	
126 240	126 240	Submission of Information Disclosure Stmt	
581 40	581 40	Recording each patent assignment per property (times number of properties)	
146 710	246 355	Filing a submission after final rejection (37 CFR § 1.129(a))	
149 710	249 355	For each additional invention to be examined (37 CFR § 1.129(b))	
179 710	279 355	Request for Continued Examination (RCE)	
169 900	169 900	Request for expedited examination of a design application	

Other fee (specify)

\*Reduced by Basic Filing Fee Paid.

SUBTOTAL (3) (\$ 0.00

## SUBMITTED BY

Name (Print/Type)	Paul J. Farrell	Registration No. (Attorney/Agent)	33,494	Telephone	(516) 228-8484
Signature		Date	August 16, 2001		

## CERTIFICATION UNDER 37 C.F.R. § 1.10

I hereby certify that this correspondence and the documents referred to as enclosed are being deposited with the United States Postal Service on date below in an envelope as "Express Mail Post Office to Addressee" Mail Label Number EL 918828596 US addressed to: Assistant Commissioner for Patents, Box Patent Application, Washington, D.C. 20231.

Dated: August 16,, 2001

Michael J. Porco

PATENT

Atty. Docket No. 678-726 (P9926)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Assistant Commissioner for Patents  
Washington, D.C. 20231

**UTILITY APPLICATION DATA SHEET UNDER 37 C.F.R. § 1.76**

Sir:

Transmitted herewith for filing is the patent application of

Inventor(s): Jae-Seung YOO, Kyong-Joon CHUN and Byung-Jin CHUN

For: ANTENNA ARRAY APPARATUS AND BEAMFORMING METHOD  
USING GPS SIGNAL FOR BASE STATION IN MOBILE  
TELECOMMUNICATION SYSTEM

Enclosed are:

- [X] 27 page(s) of specification  
[X] 1 page(s) of Abstract  
[X] 7 page(s) of claims  
[X] 10 sheets of drawings [X] formal [ ] informal  
[X] \_\_\_\_\_ page(s) of Declaration and Power of Attorney

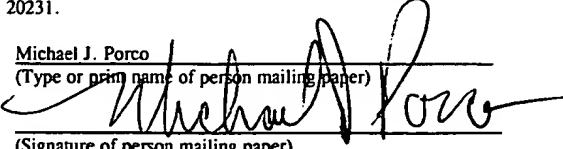
ASSIGNEE NAME: SAMSUNG ELECTRONICS CO., LTD.

ASSIGNEE RESIDENCE: KYUNGKI-DO, KOREA

**CERTIFICATION UNDER 37 C.F.R. § 1.10**

I hereby certify that this New Application Transmittal and the documents referred to as enclosed therein are being deposited with the United States Postal Service on this date August 16, 2001 in an envelope as "Express Mail Post Office to Addressee" Mail Label Number EL 918828596US addressed to: Attn: Box Patent Application, Commissioner for Patents, Washington, D.C. 20231.

Michael J. Porco  
(Type or print name of person mailing paper)

  
(Signature of person mailing paper)

09931129-001601

[ ] This application claims the benefit under 35 U.S.C. §119(e) of U.S. Provisional Application(s) No(s).:

APPLICATION NO(S).:

FILING DATE

\_\_\_\_/\_\_\_\_/\_\_\_\_  
\_\_\_\_/\_\_\_\_/\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

[X] Certified copy of applications

Country

Appln. No.

Filed

KOREA

47256/2000

August 16, 2000

from which priority under Title 35 United States Code, § 119 is claimed  
[ ] is enclosed.

[X] will follow.

CALCULATION OF UTILITY APPLICATION FEE

For	Number Filed	Number Extra	Rate	Basic Fee \$710.00
TOTAL CLAIMS	13	0	x 18 =	\$ 0.00
INDEPENDENT CLAIMS	8	5	x 80 =	\$ 400.00
[ ] Multiple Dep. Claim	0		\$270	\$ 0.00
			<b>TOTAL</b>	<b>\$ 1,110.00</b>

[ ] The amount of \$40.00 for recording the attached Assignment is enclosed as a separate check.

[X] A check in the amount of \$ 1,110.00 to cover the [X] filing fee(s) is enclosed.

[ ] Charge fee to Deposit Account No. 04-1121. Order No. \_\_\_\_\_  
TWO (2) COPIES OF THIS SHEET ARE ENCLOSED.

0004129-034601

[X] Please charge any deficiency as well as any other fee(s) which may become due under 37 C.F.R. § 1.16 and 1.17, at any time during the pendency of this application, or credit any overpayment of such fee(s) to Deposit Account No. 04-1121. Also, in the event any extensions of time for responding are required for the pending application(s), please treat this paper as a petition to extend the time as required and charge Deposit Account No. 04-1121 therefor. TWO (2) COPIES OF THIS SHEET ARE ENCLOSED.

Date: August 16, 2001



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\*Includes all independent and single dependent claims and all claims referred to in multiple claims. See 37 C.F.R. § 1.75(c).

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